

GRIGOR'YEVICH, Vasilii Prokhorovich, doktor tekhn. nauk, prof.;
KARLOV, G.I., kand. tekhn. nauk, retsenzent; TOKAR', V.M.,
red.izd-va; GARNUKHINA, L.A., tekhn. red.

[Effect of the procedure for joining sheet-metal parts on
their strength and durability] Vliianie tekhnologii vypol-
neniia soedinenii listovykh detalei na ikh prochnost' i vy-
noslivost'. Moskva, Oborongiz, 1963. 207 p. (MIRA 16:5)
(Machine shop practice)

AID P - 1160

Subject : USSR/Electricity
Card 1/1 Pub. 29 - 13/31
Author : Grigor'yevskiy, I. I., Foreman
Title : Prevention against damage of reflector lamps
Periodical : Energetik, 11, 21-22, N 1954
Abstract : The author briefly describes the arrangement to prevent damage to lamps in an installation for drying bakelite insulation on generator sheet steel. One drawing.
Institution : None
Submitted : No date

GRIGOR'YEVSKIY, V.M.; MANDEL', O.Ye.

Observations of the lunar eclipse of March 24, 1959. Astron.
tsir. no.201:6-7 Ap '59. (MIRA 13:2)

1.Odesskaya astronomicheskaya observatoriya.
(Eclipses, Lunar--1959)

GRIGOR'YEVYKH, G.F.

YAKUBTSINER, N.M., kandidat tekhnicheskikh nauk; GRIGOR'YEVYKH, G.F.,
inzhener.

Effectiveness of sinter cooling in a pot cooler. Metallurg no.11:2-
4 N '56. (MIRA 10:1)

1. Starshiy nauchnyy sotrudnik Leningradskogo politekhnicheskogo
instituta (for Yakubtsiner) .2. Nachal'nik aglomeratsionnogo tsakha
Cherepovetskogo metallurgicheskogo zavoda (for Grigor'yevykh)
(Cherepovets--Sintering)

SOV/130-58-6-4/20

AUTHORS: Levin, L.Ya., Yakubtsiner, N.M., Sholeninov, V.M. and
Grigor'yevykh, G.F.

TITLE: Use of Pyrite Cinders in the Production of High-basicity
Fluxed Sinter (Priimeneniye piritnykh ogarkov v proizvodstve
oflyusovannogo aglomerata povyshennoy osnovnosti)

PERIODICAL: Metallurg, 1958, nr 6, pp 5 - 10 (USSR).

ABSTRACT: A shortage of concentrates at the Cherepovets Metallurgical Works led to the use from the end of 1956 of pyrite cinder. Mentioning this, the authors go on to describe the development of sintering methods enabling a high proportion of this material to be used in the production of sinter with a basicity range of 1 - 1.2. The sinter plant at the works has three 75 m² machines and sinters a relatively high SiO₂ mix (Table 1). The pyrite cinders available from the Dorogomilovsk and Shchel'kovsk Works contain 0.3-0.4% Cu and 0.35-0.45% Zn, the sulphur content of both varying widely. Because of the paucity of published data and lack of experience in the USSR, on the sintering of pyrite cinders, experiments were first carried out on a 0.11 m² sinter box (Figure 2) with the participation of P.T. Krasavina, A.S. Bulatnikov and A.G. Zel'tser.

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SOV/130-58-6-4/20

Use of Pyrite Cinders in the Production of High-basicity Fluxed Sinter

Coke and limestone were 3-0 mm, cinders, concentrates and flue-dust were screened through a 5 mm screen and returns were 12-0 mm. The results showed (Figure 3) that with a mix containing 10-30% cinders accurate control of carbon (to 4.5 and 3.5-4.0% in the box and on the full scale, respectively), was obtained. A further series of tests were made with mixes containing 33% cinder showing sinter sulphur increasing with increasing CaO-content, but this effect could be minimized by raising the carbon content of the mix. Sintering speed increased as the basicity was raised to 0.8 but was unaffected by further increases. With increasing returns, from 25 to 35% sintering rate, permeability and sinter strength increased and sulphur decreased (Figure 5). Tests with 0-40% cinders in the ore part of the mix showed that a satisfactory sinter was obtained with 20-25% cinder without appreciable slowing of sintering. Bed depths of 200, 225, 250 and 275 mm were tested (Figure 7) with 25% cinders and a basicity of 1.2: maximal sulphur was obtained with the shallowest bed, the best de-sulphurization being obtained with intermediate bed depths. Sinter strength was highest with a bed depth of

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SCV/130-58-6-4/20
Use of Pyrite Cinders in the Production of High-basicity Fluxed Sinter

225 mm, while sintering speed decreased when the depth exceeded 250 mm. The authors' conclusion is that 250 mm is the optimal bed depth. Results of full-scale experiments (Figure 8) at the Cherepovets Works on the whole confirmed the box experiments. The main conditions for maximal desulphurization during sintering were found to be: bed-depth 240-250 mm instead of 275, carbon content of the mix 4.5 - 4.8 instead of 3.5-4% (with 20-25% cinders); good permeability, secured by 30-35% returns and an artificial hearth layer. The lower iron content of the sinter with cinders was found to have no effect on the coke rate (700 kg/t pig) or the coefficient of utilisation of useful volume (0.73). There are 8 figures and 2 tables.

ASSOCIATION: Cherepovetskiy metallurgicheskiy zavod (Cherepovets Metallurgical Works) and Leningradskiy politekhnicheskiy institut (Leningrad Polytechnical Institute)

Card 3/3 1. Sintering furnaces - Equipment 2. Pyrites - Applications
3. Sintering furnaces - Operation

18.2000

78170
SOV/133-60-3-1/24

AUTHORS:

Yakubtsiner, N. M., Nevmerzhitskiy, Ye. V.,
Grigor'yevykh, G. F.

TITLE:

The Practice of Producing Sinter of Increased Basicity
When Sintering Fine Beneficiated Ore

PERIODICAL:

Stal', 1960, Nr 3, pp 193-203 (USSR)

ABSTRACT:

This is a description of a successful production of increased basicity sinter at the Cherepovets Metallurgical Plant (Cherepovetskiy metallurgicheskiy zavod). The described sintering plant is equipped with 3 sintering machines which were put into operation in June 1955 and April and December 1956, respectively (see Fig. 1). In the first few months the plant produced nonfluxed sinter, or sinter with the degree of basicity ($\text{CaO} : \text{SiO}_2$) not higher than 0.5; but since the end of 1955 the plant has been producing sinter of 1.15-1.20 basicity. Working on such sinter, the plant's blast furnaces had better results (regarding coke consumption)

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The Practice of Producing Sinter of
Increased Basicity When Sintering Fine
Beneficiated Ore

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SOV/133-60-3-1/24

than other furnaces in the USSR. Described are: characteristics of raw materials and their preparation for sintering; Olenogorsk (not identified) beneficiated ore; pyrite cinders; limestone; coke fines and other admixtures, as well as the work of sintering plant and the quality of sinter; operation of the equipment and technical-economical characteristics of the sintering plant work. The cost of sinter, considerably lowered since 1956, (125-127 rubles/ton) and processing (about 15 rubles/ton) is still expensive compared with Southern plants (48-55 rubles/ton) for sintering; 8-10 rubles for processing. This is explained by: (a) higher cost of Olenogorsk beneficiated ore (107 rubles/ton) as against that of Krivoy Rog beneficiated ore (30 rubles/ton); (b) high power cost due to unfinished construction of the plant and overequipment of sintering plant with electrical machinery; (c) expensive repairs of new equipment (ring type coolers of sinter, conveying of sinter into blast furnace shop, etc.) and purchase

Card 2/6

The Practice of Promoting the
Increased Productivity When Sintering
Beneficiated Ore

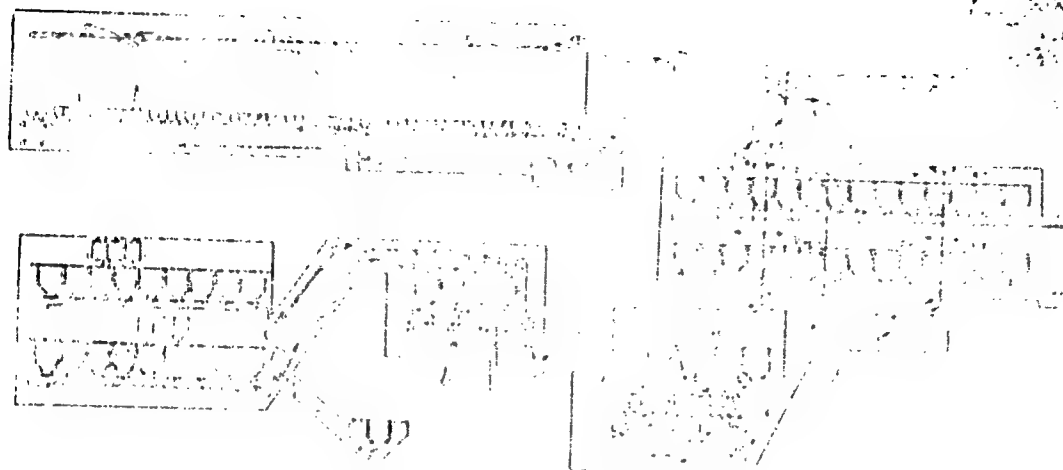
1977
307/155-00-3-1/24

of rolled shapes from the outside. Proposed measures for lowering the cost of sinter are: (1) decreasing power consumption by eliminating excess power electric motors, introducing automation, reducing idle time to a minimum; (2) improving quality of repairs, with corresponding extension of time between repairs; (3) prolonging the life of parts by making them from manganese steel (grind plates) and heat resisting cast iron (fire gates, etc.), applying heat treatment, etc.; (4) increasing the amount of relatively cheap scale in the charge; (5) increasing sinter production and the productivity of labor by 5-6%. The above measures will lower the cost of sinter (3.5-4 rubles/ton) and Cherepovets cast iron (7-8 rubles/ton).

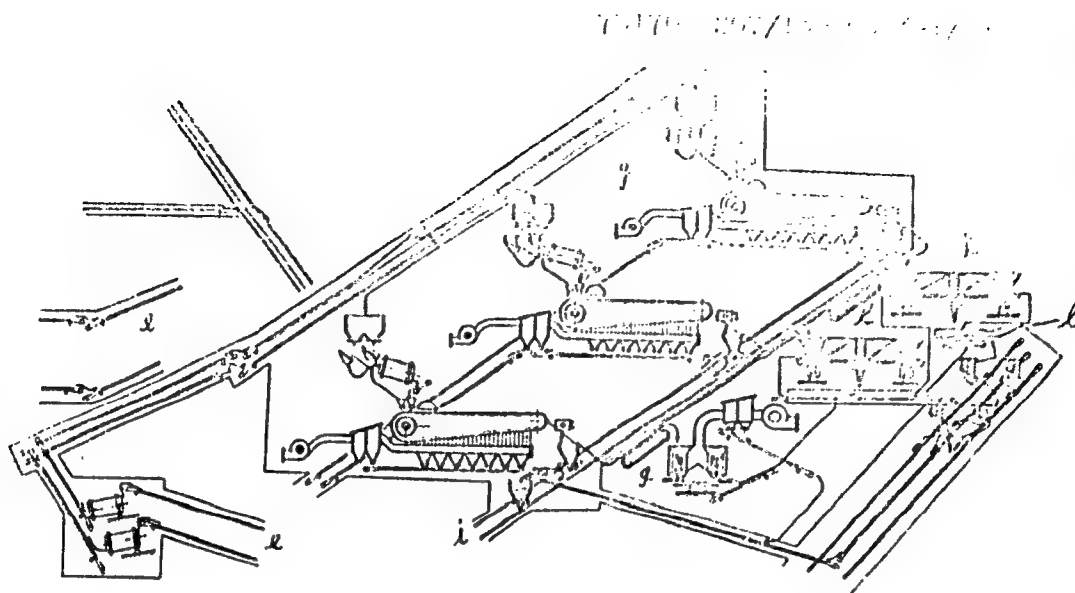
ASSOCIATION:

Cherepovets Metallurgical Plant and Leningrad Polytechnic Institute (Cherepovetskiy metallurgicheskiy zavod i Leningradskiy politehnicheskiy institut)

Card 5/6



Card 4/6



Card 5/6

Fig. 1. (Caption on Card 6/6)

The Practice of Producing Sinter of
Increased Basicity When Sintering Fine
Beneficiated Ore

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SOV/133-60-3-1/24

Fig. 1. Schematic diagram of equipment at the Cherepovets sintering plant. (a) Ground type, roofed storehouse of beneficiated ore; (b) coke crushing building; (c) conveyors into charge building; (d) limestone crushing building; (e) conveyors into sintering building; (f) car dumper; (g) sintering building; (h) three-ring type sinter coolers (the third cooler is equipped with cooling blower and battery cyclones); (i) conveyors into primary mixing building; (j) conveyors from coke crushing building; (k) charge building; (l) plate transporters.

Card 6/6

TREKALO, S.K.; YAKURTSINER, N.M.; ANDRONOV, V.N.; GRIGOR'YEVYKH, G.F.;
KAYLOV, V.D.; SHUR, A.B.; v rabote prinimali uchastiye:
NEVMERZHITSKIY, Ye.V.; SHOLENINOV, V.M.; VITOVSKIY, V.M.;
GRINBERG, D.L.; GUTMAN, E.Ye.; YEGOROV, N.D.

Open-hearth furnace operations with classified sinter. Stal'
20 no. 12:1063-1070 D '60. (MIRA 13:12)

1. TSentral'nyy nauchno-issledovatel'skiy institut chernoy
metallurgii i Cherepovetskiy metallurgicheskiy zavod.
(Blast furnaces) (Sintering)

L 1311-66 EWT(1)/EWT(m)/EWP(t)/EWP(b) LJP(c) JD/JG
ACCESSION NR: AR5014397

UR/0058/65/000/004/D032/D032

SOURCE: Ref. zh. Fizika, Abs. 4D242

AUTHOR: Ignat'yeva, M. I.; Melik-Gaykazyan, I. Ya.; Grigoruk, L. V.

TITLE: Effect of lead impurity on the concentration of F-centers in alkali halide phosphor crystals

CITED SOURCE: Sb. Spektroskopiya. M., Nauka, 1964, 176-178

TOPIC TAGS: crystal phosphor, color center, alkali halide, sodium chloride, potassium chloride, potassium bromide

TRANSLATION: The authors study the effect of Pb-content on the number of F-centers (n_F) in NaCl-Pb, KCl-Pb and KBr-Pb crystal phosphors. The Pb-content (C_{max}) is determined which corresponds to the maximum number of F-centers. The initial growth in n_F as the activator concentration is increased is due to embedding of the impurity into the fundamental lattice structure at concentrations less than C_{max} which increases the concentration of V- and then F-centers. The reduction in F-band absorption with a further increase in Pb-content is associated with that por-

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L-1311-66

ACCESSION NR: AR5014397

tion of the impurity which is distributed among defects in the lattice of the phosphor crystal and forms deep electron levels there. N. Maksimova.

SUB CODE: SS

ENCL: 00

mlr
Card 2/2

GRIGORYUK, V.F.

Business accounting by shifts in the railroad stations. Zhel.
dor. transp. 45 no.11:72-73 N '63. (MIRA16:12)

1. Starshiy normirovshchik st. Belogorsk Zabaykal'skoy dorogi.

GRIGORYUK, Ye. I.

3

Штук
Ученые Трехстороннего Общества
Легкая Задача. R. I. Original
Law. Adv. Nov. 1957, Vol. 1, No. 1
Jan., 1957, pp. 77-84, 13 refs. in Rus-
sian. Application of the variation method
to obtain the basic equations of a thin
sandwich shell of arbitrary form. The
carrying plates and the packing material
are assumed homogeneous and isotropic.

Shm Sm
any

CHEL'TSOVA, M.A.; PETROV, A.D.; GRIGOS, V.I.

Synthesis and properties of di- and triphenyl alkanes. Report No.4:
Selective hydrogenation of di- and triphenyl alkanes over PtO₂.
Izv. AN SSSR. Otd. khim. nauk no.2:294-301 F '61. (MIRA 14:2)

1. Institut organicheskoy khimii im.N.D.Zelinskogo AN SSSR.
(Hydrogenation) (Platinum oxide)

POVAROV, L.S.; GRIGOS, V.I.; MIKHAYLOV, B.M.

Reactions of benzylideneaniline with some unsaturated compounds.
Izv. AN SSSR. Ser. khim. no.11:2039-2041 N '63. (MIRA 17:1)

1. Institut organicheskoy khimii imeni N.D. Zelinskogo AN SSSR.

POVAROV, L.S.; GRIGOS, V.I.; KARAKHANOV, R.A.; MIKHAYLOV, B.M.

Reactions of dihydropyran and 2-methyldihydrofuran with some
Schiff bases. Izv.AN SSSR. Ser.khim. no.1:179-181 Ja '64.
(MIRA 17:4)

1. Institut organicheskoy khimii im. N.D.Zelinskogo AN SSSR.

MIKHAYLOV, B.M.; POVAROV, L.S.; GRIGOS, V.I.; KARAKHANOY, R.A.

Reactions of dihydrosylvan with Schiff bases. Izv. AN SSSR. Ser. khim.
no.9:1693-1695 S '64. (MIRA 17:10)

1. Institut organicheskoy khimii im. N.D.Zelinskogo AN SSSR.

SHAPIRO, A.B.; ROZANTSEV, E.G.; POVAROV, L.S.; GRIGOS, V.I.

New stable free radical 4-methyl-2-spirocyclohexyl-3,4; 3',2'-
tetrahydrofurano-1,2,3,4-tetrahydroquinoline-oxyl. Izv. AN SSSR.
Ser.khim. no.9:1725 S '64. (MIRA 17:10)

1. Institut khimicheskoy fiziki AN SSSR.

FOVAREV, L.S.; GRIGOS, V.I.; KAPANDAROV, E.A.; MIKHAYLOV, B.M.

Reactions of halogen-containing Schiff's bases with unsaturated
ethers. Izv. AN SSSR Ser. khim. no.2:365-367 '65.

(MIRA 18:2)

1. Institut organicheskoy khimii im. N.D. Zelinskogo AN SSSR.

L 59597-65 EWT(m)/EPF(c)/ENP(j)
ACCESSION NR: AP5017964

PC-4/Pt-4 BPL BM
UR/0062/65/000/006/1102/1104
547.831+547.024

28
25
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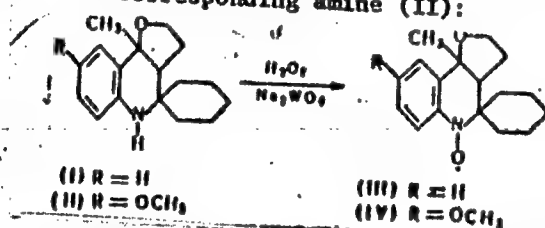
AUTHOR: Shapiro, A. B.; Rozantsev, E. G.; Povarov, L. S.; Grigos, V. I.

TITLE: Paramagnetic derivatives in the hydrogenated quinoline series

SOURCE: AN SSSR. Izvestiya. Seriya khimicheskaya, no. 6, 1965, 1102-1104

TOPIC TAGS: quinoline derivative, free radical, electron spin resonance, ESR spectrum

ABSTRACT: The following stable radical from the hydrogenated quinoline series was obtained for the first time: 6-methoxy-4-methyl-2-spirocyclohexyl-3,4; 3',2'-tetrahydrofuran-1,2,3,4-tetrahydroquinolin-1-oxyl (IV). It was synthesized by catalytic oxidation of the corresponding amine (II):

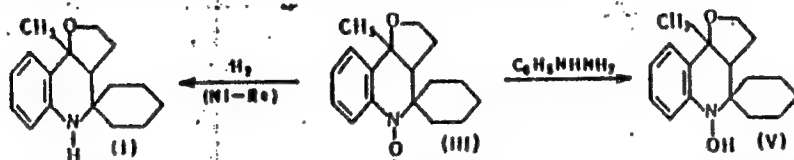


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L 59597-65

ACCESSION NR: AP5017964

3
The hyperfine structure of the ESR spectrum of this radical consists of 6 lines. Such a decrease in the number of lines upon replacement of hydrogen in the para-position by a methoxy group agrees with modern concepts of the interaction of an unpaired electron with protons of the benzene ring. Radical (III) was reduced to the initial amine and to the corresponding hydroxylamine (V):



The synthetic procedure employed is described. "In conclusion, the authors express their appreciation to A. A. Medzhidov for participating in the evaluation of the spectroscopic part of this work." Orig. art. has: 2 figures and 2 formulas.

ASSOCIATION: Institut khimicheskoy fiziki Akademii nauk SSSR (Institute of Chemical Physics, Academy of Sciences, SSSR); Institut organicheskoy khimii im. N. D. Zelinskogo Akademii nauk SSSR (Institute of Organic Chemistry, Academy of Sciences, SSSR)

Card 2/3

L 59597-65
ACCESSION NR: AP5017964

SUBMITTED: 30Sep64

ENCL: 00

SUB CODE: OC, NP

NO REF SOV: 006

OTHER: 000

Card

AR
3/3

POVAROV, L.S.; GRIGOR, V.I.; SHCHERBAVSKIY, I.M.; FOMINOV, B.M.

Reactions of anils with vinylbutyl sulfide. Izv. AN SSSR.Ser.khim.
no.10:1891-1893 '65. (MIRA 18:10)

1. Institut organicheskoy khimii im. N.D.Zelinskogo AN SSSR.

GRIGOS, V.I.; POVAREV, L.S.; MIKHAYLOV, B.M.

Reactions of Schiff bases with vinyl alkyl ethers. Izv. AN SSSR.
Ser.khim. no.12:2163-2172 '65.

(MIRA 18:12)

1. Institut organicheskoy khimii im. N.D.Zelinskogo AN SSSR.
Submitted July 7, 1965.

GRIGOVICH, I.N.

Use of Noble's operation. Khirurgiia 40 no.3:70-74 Mr '64.
(MIRA 17:9)

1. Kafedra obshchey khirurgii (zav.- doktor med. nauk F.M.
Danovich) Petrozavodskogo universiteta i Kandalakshskaya
gorodskaya bol'nitsa (glavnyy vrach L.P. Mutovina).

GRIGOVICH, I.N. (Petrozavodsk, ul. Lenina, 38, kv. 85)

Open dislocation of the hip joint in a child. Vest. khir. 92
no. 6:93 Je '64. (MIRA 18:5

1. Iz khirurgicheskogo otdeleniya (zav. - N.B. Manetina) zheleznodorozhnoy bol'nitsy (nachal'nik - M.D. Vishnevskaya) st. Petrozavodsk.

KOBO, Khuan [Blasco Cobo, Juan]; GRIGULEVICH, I.R., kand. ist.
nauk, red.; BOBNEVA, N.P., red.; ~~RAKITIN~~, I.T., tekhn.
red.

[Our friend Cuba] Drug nash Kuba. Pod nauchn. red.
I.R.Grigulevicha. Moskva, Izd-vo "Znanie," 1963. 47 p.
(Novoe v zhizni, nauke, tekhnike. XII Seriya: Geologiya
i geografiia, no.22) (MIRA 17:1)

GRIGULEVICH, I. R.

"Indeytsy Latinskoy Ameriki i ikh rol' v natsional'no-osvoboditel'noy bor'be."

report submitted for 7th Intl Cong, Anthropological & Ethnological Sciences,
Moscow, 3-10 Aug 64.

GONIONSKIY, S.A., otv. red.; GRIGULEVICH, I.R., red.; YEFIMOV,
A.V., red.; GORNOV, M.F., red.; RUDENKO, V.T., red.

[Chile; its politics, economy, culture] Chili; politika,
ekonomika, kul'tura. Moskva, Nauka, 1965. 353 p.
(MIRA 18:9)

1. Akademiya nauk SSSR. Institut Latinskoy Ameriki.

Chlorophyll, U

Category : USSR / Radio Physics, Generation and Conversion of
Radio-Frequency Oscillations

I-4

Abs Jour : Ref Jour - Fizika No 3, 1957, No 7272

Author : Grigulovich, V.I.

Title : New Method for Frequency Multiplication and Quartz Crystal Stabilization of Short and UHF Waves

Orig. Pub : Elektrosvyaz', 1956, No 6, 14-18

Abstract : Description of a frequency-multiplication method, based on the use of the spectrum of periodically-discontinuous oscillations. Unlike radio pulses obtained by modulation, the processes occurring during intermittent oscillation is under certain conditions periodic for any ratio of frequency ω and ω_0 , where ω_0 is the self-excitation frequency of the generator and ω the frequency of the control voltage that interrupts periodically the oscillations of the generator. If $k \ll 1$, the amplitude of the component $k \omega$ is independent of the number k of the harmonic (the maximum of the spectral function shifts relative to ω_0). The multiplicity factor is varied over a wide range by the retuning of the generator of frequency ω_0 . A multiplication circuit is shown and described for

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Category : USSR / Radio Physics. Generation and Conversion of
Radio-Frequency Oscillations

I-4

Abs Jour : Ref Zhur - Fizika No 3, 1957, No 7272

a short-wave multi-channel quartz-crystal system. Similar circuits can be recommended for use all the way to the decimeter band. See also Referat Zhurnal Fizika, 1954, 1821.

Card : 2/2

- 22 -

3(9)

APPROVED FOR RELEASE: Thursday, July 27, 2000

CIA-RDP86-00513R00051

TITLE: The Problem of the Fluctuational Character of Steady-State Oscillations in an Electronic **Magnetron Oscillator**
(K voprosu o flyuktuatsionnom kharaktere ustanovleniya kolebaniy v elektronnom avtogeneratore)

PERIODICAL: Izvestiya vyschikh uchebnykh zavedeniy - radiotekhnika, 1959, Vol 2, Nr 1, pp 65-70 (USSR)

ABSTRACT: The author investigates the general case of a statistical oscillation build-up process in a self-oscillator in the presence of external excitation and transient switching processes. The presence of the latter reduces the oscillation build-up time in a self-oscillator and decreases its dispersion which increases the threshold possibilities of pulsed systems from the point of view of minimum pulse duration and internal noise. The author shows that the reduction of build-up time

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SOV/142-2-1-8/22
The Problem of the Fluctuational Character of Steady-State Oscillations in an Electronic **Magnetron Oscillator**

$$\bar{C}(\tau, t_0) = \frac{C}{2} + \frac{1}{2} \ln h^2 - \frac{1}{2} \text{Ei}(-h^2)$$

and the magnitude of its dispersion do not depend on the dynamic forces of a system, but are determined by the excitation-to-fluctuation ratio

$$h^2 = \frac{S^2}{2\sigma^2}$$

and the regenerated circuit time constant. The statistical characteristics of the build-up time may be used for determining the spectrums of signals and noises. Further, they may be used for calculating spectrum generators, superregenerators, pulse-modulated radio lines and similar systems. The author expresses his gratitude to Doctor of Physico-Mathematical Sciences, Professor M.D.

Card 2/3

SOV/142-2-1-8/22
The Problem of the Fluctuational Character of Steady-State Oscillations in an Electronic **Magnetron Oscillator**

Khaskin for valuable advice, and to Docent I. Ye. Sredniy for his remarks concerning this investigation. There are 1 graph and 11 references, 1 of which is American and 10 Soviet.

ASSOCIATION: Kafedra televideniya Odesakogo elektrotekhnicheskogo instituta svyazi (Chair of Television of the Odesa Electrical Engineering Institute of Communications)

SUBMITTED: May 30, 1958

Card 3/3

9 (2), 24 (7)

06356
SOV/142-2-4-9/26

AUTHOR: Grigulevich, V.I.

TITLE: The Fluctuation Character of the Spectrum of an Electronic Self-Oscillator for Pulse Operation

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy. Radiotekhnika. 1959, Vol 2, Nr 4, pp 446-453 (USSR)

ABSTRACT: The author investigates the influence of fluctuations of the initial oscillation generating conditions in a pulse self-oscillator on its output spectrum. The time characteristics of statistical processes for establishing amplitudes and phases of self-oscillators by accounting the fluctuation influence were investigated by I.S. Gonorovskiy [Ref 3]. V.I. Grigulevich [Ref 5] and others. A number of papers deal with the influence of fluctuations on the spectrum of a self-oscillator under steady-state operating conditions. I.S. Gonorovskiy [Ref 1], I.L. Bernshteyn [Ref 2]. The author used data from his paper [Ref 5] for this study. He investigates the spectrum of the statistical realization of

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06356

SOV/142-2-4-9/26

The Fluctuation Character of the Spectrum of an Electronic ~~Master-~~
Oscillator for Pulse Operation

a single pulse; some results of preliminary calculations; the calculation of spectrum components of a radio pulse random process; the spectrum of the envelope of a radio pulse random process; and finally, a calculation of internal noises in a pulse oscillator. For some pulse systems, a certain time characteristic of the pulse envelope must be maintained. The conclusions and the quantitative characteristics presented in this paper are of interest for pulse frequency multipliers of superregenerators and radio lines with pulse modulations. According to the results of I.S. Gonorovskiy's paper [Ref 1], it is easily determined that $\mu(\omega) = 10^{-6} + 10^{-7}$ for a ~~master-~~oscillator in steady-state operation, and that $h = 10^3 + 10^4$, according to the formula

$$\mu(\omega) = \frac{1}{h^2} \frac{\Delta F}{F_u}$$

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06356

SOV/142-2-4-9/26

The Fluctuation Character of the Spectrum of an Electronic Master-Oscillator for Pulse Operation

where ΔF - pass bandwidth of the channel. The author concludes that noises in the spectrum of a pulse master-oscillator are determined principally by fluctuations of the initial conditions of generating oscillations, and chiefly by fluctuations of the initial phase, increasing the density of the continuous spectrum by $2(\beta\tau_0)^2$ times compared to the spectrum of the envelope

$$\frac{W_H(\omega)}{W_H(\Omega)} = 2(\beta\tau_0)^2 > 1$$

The author mentions in a note I.L. Bernshteyn's critique of the papers of Hamilton, Knipp, Kuper [Ref 10] and Pound [Ref 11] for their interpretation of the statistical character of processes in a self-oscillator. - The publication of this paper was recommended by the Department of Radio Wave Propagation of the Odesskiy elektrotekhnicheskiy institut svyazi (Odessa Electri-

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06356
SOV/142-2-4-9/26

The Fluctuation Character of the Spectrum of an Electronic Master-
Oscillator for Pulse Operation

cal Engineering Institute of Communications). There are
3 diagrams and 11 references, 8 of which are Soviet
and 3 American.

SUBMITTED: January 5, 1959

Card 4/4

GRIGULEVICH, V. I., Cand Tech Sci -- (diss) "Radio-impulse multiplier of frequencies. (Generator of spectra)." Moscow, 1960. 16 pp; (Ministry of Higher and Secondary Specialist Education RSFSR, Moscow Order of Lenin Aviation Inst im Sergo Ordzhonikidze); 160 copies; price not given; bibliography at end of text (22 entries); (KL, 27-60, 152)

39.67
S/106/62/000/008/002/009
A055/A101

9.3280

AUTHOR:

Grigulevich, V.I.

TITLE:

On the problem of the phase stabilization in pulse self-oscillators

PERIODICAL:

Elektrosvyaz', no. 8, 1962, 13 - 19

TEXT:

The author shows the possibility of synchronizing pulse self-oscillators by the external signal in the operating conditions $A_2 > \sqrt{2} \sigma$, (1) being the dispersion of noises and A_2 the amplitude of the oscillations of the preceding pulse at the initial moment of the self-excitation conditions. The basic conditions of the synchronization of pulse self-oscillators by the external signal are determined in the article. The obtained results render much easier the construction of frequency multipliers by the squitter method. In the first part of the article, the author sets forth the method of radio-pulse frequency multiplication. The steady-state amplitude (A_{st}) of the oscillations of the self-oscillator is reduced to the value (A_2) at which becomes possible the "trapping" of the phase of the oscillations by the components of the external signal that have caused a transient process (an impact excitation with initial ampli-

Card 1/0 3

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A055/A101

On the problem of the phase stabilization in ...

tude A_y) in the self-oscillator circuit. Owing to the positive feedback, the already stabilized oscillations increase then again up to the value A_{st} . The process is repeated periodically at the frequency of the synchronizing signal $\Omega = \frac{2\pi}{T}$. As a result, the output oscillation of the self-oscillator becomes a strictly periodical sequence of radio pulses with a period equal to T (Fig. 1). After a brief description of the properties of this frequency multiplication method, the author determines the self-oscillator synchronization conditions. A_0 , φ_0 and ω_0 being, respectively, the initial amplitude and phase of the oscillation, and the natural frequency of the self-oscillator, the author writes:

$$A_2 = A_{st} e^{-\beta_2 (T-t_2)} \quad (2)$$

(where β_2 is the damped circuit decrement, independent of the number k of the pulse), and

$$\psi = 2\pi \left(\frac{\omega_0}{\Omega} - N \right), \quad (3)$$

where ψ (see Fig. 2) is the variation of the phase of the oscillation in the pulse, and N is the multiplicity factor, also independent of k . The author de-

Card 2/8 3

On the problem of the phase stabilization in

S/106/62/000/008/002/009
A055/A101

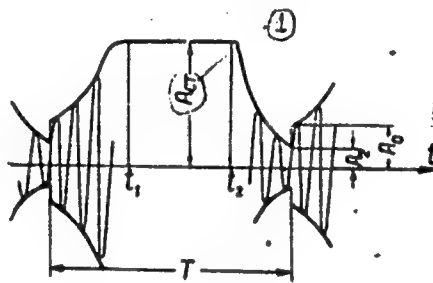
duces next a set of expressions for the oscillations in the k-th pulse. The full synchronization of the self-oscillator takes place if there exists the limit

$$\lim_{k \rightarrow \infty} \varphi_0, k = \varphi_0, \quad (9)$$

independent of k. This can be satisfied only if $|\eta \sin \beta| \leq 1$. (12)
At the end of the article, the author discusses the assumptions made by him and shows that the synchronization condition (12) holds in spite of these assumptions. There are 2 figures.

SUBMITTED: January 8, 1962

Figure 1: (1) A_{st}



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40487

9.2586
9.3280

S/106/62/000/009/002/003
A055/A101

AUTHOR: Grigulevich, V.I.

TITLE: Synchronization of self-pulsed oscillators in linear operating conditions

PERIODICAL: Elektrosvyaz', no. 9, 1962, 26 - 32

TEXT: This work is a continuation of the author's previous article ["K voprosu stabilizatsii fazy v impul'snykh avtogeneratorakh" (On the problem of phase stabilization in self-pulsed oscillators), Elektrosvyaz', no. 8, 1962] where he dealt with the synchronization conditions of self-pulsed oscillators in "self-oscillating" or "nonlinear" operation. Analogous formulae are now deduced for oscillators in "linear" or "amplification" operating conditions. The amplitude A_2 of residual oscillations before the achievement of synchronization depends here on the number k of the pulse: $A_{2, k} = A_{0, k-1} \alpha$, (2) where $\alpha > 0$ is a factor taking into account the variation of the oscillation amplitude in the pulse sequence period $T = \frac{2\pi}{\omega}$, i.e., $\alpha = U(T)$, $U(t)$ be-

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S/106/62/000/009/002/003

A055/A101

Synchronization of self-pulsed oscillators

ing the envelope of the pulse. The synchronization conditions are determined by the following conditions:

$$\lim_{k \rightarrow \infty} A_{0, k} = A_0, \quad (6)$$

$$\lim_{k \rightarrow \infty} \varphi_{0, k} = \varphi_0. \quad (7)$$

The general synchronization condition, which does not depend on the relationship between ω_0 and Ω is: $\alpha < 1$. (8)
For a given relationship between ω_0 and Ω , synchronization takes place if the following system of equations can be solved for A_0 and φ_0 :

$$\sin \varphi_0 = \frac{A_0}{A_y} \alpha \sin \psi \quad (9)$$

$$A_0^2 = A_y^2 + A_0^2 \alpha^2 + 2 A_0 A_y \alpha \cos (\varphi_0 + \psi) \quad (14)$$

Synchronization conditions (8) and (9) hold for any $A_y > 0$.
They hold for any general assumption, with one restriction: superposition of excitation and residual oscillations should be possible in the range of initial

Card 2/3

Synchronization of self-pulsed oscillators

S/106/62/000/009/002/003
A055/A101

amplitude values. Several formulae for checking the fulfillment of the synchronization conditions in practical frequency multiplier circuits are reproduced in the second part of the article. The results obtained both in this article and in the previous one facilitate the design of pulsed frequency-multipliers. Thanks are expressed to I.I. Shumlyanskiy and L.P. Kramarenko. There are 2 figures. X

SUBMITTED: January 8, 1962

Card 3/3

ACCESSION NR: AP4029221

S/0106/64/000/004/0019/0026

AUTHOR: Grigulevich, V. I.; Lobodzinskiy, V. A.

TITLE: Some optimum relations in the limitation of AM oscillations

SOURCE: Elektrosvyaz', no. 4, 1964, 19-26

TOPIC TAGS: frequency multiplication, AM, AM limitation, AM suppression, radio pulse frequency multiplication

ABSTRACT: A method of evaluating the efficiency of AM suppression by limiters is suggested. The suppression is mainly intended for obtaining monochromatic oscillations from the spectrum of a radio-pulse frequency multiplier (V. I. Grigulevich, Elektrosvyaz', 1956, no. 6). The system consists of a quartz oscillator, a frequency multiplier, a preselector, a limiter, and a filter; the preselector converts the pulsed oscillations of the frequency multiplier into AM continuous oscillations. The nature and position of the extremum points in the

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ACCESSION NR: AP4029221

output wave differ from those at the limiter input: the modulation frequency is doubled which was experimentally corroborated. The modulation factor at the output is found to be equal to: $\pi' = \frac{1}{12} \eta_0^2 \pi^2$; the efficiency of the amplitude limiter is $\eta_p = \frac{1}{12} \eta_0^2 \pi$ where $\eta = \frac{U_a}{U_m} = \cos \theta$. The case of limiting under frequency-multiplication conditions is also considered. Orig. art. has: 4 figures and 37 formulas.

ASSOCIATION: none

SUBMITTED: 09Jun63

DATE ACQ: 28Apr64

ENCL: 00

SUB CODE: EC

NO REF SOV: 003

OTHER: 000

Card 2/2

GRIGULEVICH, V.I.; LOBODZINSKIY, V.A.

Spurious phase modulation in the limiting of A: oscillations.
Elektrosviaz' 18 no.8:73-76 Ag '64. (MIRA 17:8)

ORIGULIS, J.

High frequency electromagnetic method for controlling the properties of surface covers of details. In Russian. p. 29.

LATVIAS PSR ZINATNU AKADEMIJA. VESTIS. RIGA, LATVIA. No. 7, 1959

Monthly List of East European Accessions. (EEAI) LC, Vol. 9, no. 2, Feb. 1960 Uncl.

Yu. K. ...
PITEL'S, K. Yu., et al.

"Measurement of properties of various coatings with L.I." (Section III)

report submitted for Measurement and Automation, Scientific Society for (Hungarian)
Intl. Measurement Conference - Budapest, Hungary, 24-25 Nov 51

PHASE I BOOK EXPLOITATION		SOV/5291
Soveshchaniye po kompleksnoy mekhanizatsii i avtomatizatsii tekhnicheskikh protsessov v mashinostroyeni. 2d, Moscow, 1956		
Avtomatizatsiya mashinostroyeniya s protsessov. t. III: Obrabotka rezaniyem i obshcheye voprosy avtomatizatsii (Automation of Machine-Building Processes. v. 3: Metal Cutting and General Automation Problems) Moscow, Izd-vo AN SSSR, 1950. 296 p. (Series: Itsi: Trudy, t. 3) 4,700 copies printed.		
Sponsoring Agency: Akademiya nauk SSSR, Institut mashinovedeniya. Komissiya po tekhnologii mashinostroyeniya.		
Resp. Ed.: V. I. Dikushin, Academician; Ed. of Publishing House: V. A. Kotov; Tech. Ed.: I. P. Kuz'min.		
PURPOSE: This collection of articles is intended for technical personnel concerned with the automation of the machine industry.		
COVERAGE: This is Volume III of the transactions of the Second Conference on the Full Mechanization and Automation of Manufacturing Processes in the Machine Industry, held September 25-29, 1956. The transactions have been published in three volumes. Volume I deals with the hot pressworking of metals, and volume II, with the actuation and control of machines. The present volume deals with the automation of metal machining and work-hardening, and with general problems encountered in automation. The transactions on the automation of metal-machining processes were published under the supervision of P. S. Dem'yanok and A. M. Karatygin, and those on the automation of work-hardening processes, under the supervision of E. A. Satei' and M. O. Yakobson. No personalities are mentioned. There are no references.		
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AVAILABLE: Library of Congress	

S/194/61/000/008/018/092
D201/D304

AUTHOR: Grigulis, Yu.K.

TITLE: Automatic thickness control of surface films

PERIODICAL: Referativnyy zhurnal. Avtomatika i radioelektronika, no. 8, 1961, 17, abstract 8 V141 (Avtomatiz. mashinostroit. protsessov, v. 3, M., AN SSSR, 1960, 222-226)

TEXT: The method of measuring the force required to tear off a permanent magnet from the investigated surface is used to determine the thickness of anti-corrosion films coating a ferromagnetic backing. A rod with a magn. tip is placed inside a coil with a.c. Under the effect of magnetic field produced by the coil, the rod is torn off from the object surface. The magnitude of current determines the thickness of coating. The sensitivity of the instrument is controlled by the initial position of the coil with respect to the rod. The wear of the rod tip is prevented by a rolled-in

Card 1/2

Automatic thickness control...

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D201/D304

steel pellet 1 mm dia. The effect of the thickness of the object is eliminated by using an armco ion bench. The instrument was designed at the Laboratory of Sciences of Machines of the AS Latvian SSR, the automatic version by the 830 (VEF) factory. The instrument may be used for measuring the thickness of a cemented or anodized coating, also for measuring nickel or chromium coating. 4 figures. 3 references. [Abstracter's note: Complete translation]

Card 2/2

S/193/61/000/001/008/008
A005/A001

AUTHORS: Origulis, Yu.K., Pastritskiy, V.S.

TITLE: The Universal Device УП -3М (UP-3M) for Checking the Thicknesses of Coverings and Properties of Surface Layers

PERIODICAL: Byul. tekhn.-ekon. inform., 1961, No. 1, pp. 42-44

TEXT: The Laboratoriya avtomatizatsii proizvodstvennykh protsessov (Laboratory for Automation of Production Processes) of the Institut mashinovedeniya AN Latvyskoy SSR (Institute of Science of Machines at the Academy of Sciences of the Latvyskaya SSR) developed a high-frequency device UP-3M for measuring the thicknesses of arbitrary coverings on arbitrary base materials under the condition that their electrical conductivities or the magnetic permeabilities differ by at least a few percent. The high sensitivity of the device permits also the measurement of surface layer properties of components or their coatings over a very wide range: the electric conductivity, the magnetic permeability, the homogeneity degree of the chemical composition and the thermal treatment, the porosity, the surface fineness, the presence and magnitude of surface cracks, the amplitudes and frequencies of the vibrations of mechanical components. The operation principle of the device

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S/193/61/000/001/008/008
A005/A001

The Universal Device УП-3М (UP-3M) for Checking the Thicknesses of Coverings and Properties of Surface Layers

is as follows: a high-frequency electromagnetic flux of an emitter induces in the surface layer of the component eddy currents causing energy losses and an electromagnetic counter-flux; the magnitude of losses and electromagnetic counter-flux depends on the electromagnetic properties of the surface layer or on the distance between the emitter and the component. The device consists of the following units: supply with electronic stabilizer, h.f. generator, measuring device with emitter, amplifier, and indicator. The supply unit includes the transformer, two semiconductor bridge rectifiers, the electronic stabilizer made up of valves and a stabilivolt; the filament voltage is stabilized by a barreter. The generator has two circuits with electron coupling (so called Schembel generator with series connection of the circuits) having high frequency stability within wide limits independent of the load variability. The measuring unit is a T-shaped overlapping bridge whose responsive element is the special transducer in the form of a coil placed in a specially shaped ferrite concentrator. The bridge is adjustable by a capacitance selector, a variable capacitor, resistance selector, and potentiometer. The bridge input voltage is 1.4-1.6 v independent of the balancing degree. The bridge

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S/193/61/000/001/008/008
A005/A001

The Universal Device УН -3М (УН-3М) for Checking the Thicknesses of Coverings and Properties of Surface Layers

output voltage is fed into the resonance amplifier input through a resistance, a potentiometer, and a separation capacitor. The resonance amplifier permits the separation of the fundamental harmonic. The resistance serves for the widening of the pass band. The amplification factor of the amplifier is 100. The indicator unit consists of the detector and the d.c. amplifier with a microammeter in its anode circuit. The measurement can be carried out by both methods of unbalance and two parameters. In the former case, the device is balanced and tuned with the transducer on the standard basis. For measuring different coverings on steel and nonmagnetic metals or the thicknesses of different foils applied to a nonconductive base, calibration graphs are added to the device; if the electromagnetic properties of the base and covering materials differ sharply, it is convenient to perform the measurement with the transducer removed from the component by a few millimeters. The measuring method of two parameters is based on the possibility of direct fixing of the changes of the active and induced transducer resistance, if the transducer is contacted with specimens of different materials, with different covering or different finish degree; for these measurements special diagrams must be plotted. This method makes it possible to measure simultaneously two parameters

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S/193/61/000/001/008/008
A005/A001

The Universal Device \|-3|1 (UP-3M) for Checking the Thicknesses of Coverings and Properties of Surface Layers

of a covering or a surface layer, for instance, electric conductivity and magnetic permeability, or the thickness of the covering or the surface layer and its electric conductivity. The sensitivity of the device to variations of the environmental temperature is a disadvantage, which requires additional balancing at an environmental temperature exceeding 40°C , whereby the sensitivity of the device does not change. Moreover, when using manganese-zinc ferrites for the transducer concentrator, the transducer parameters become generally better, and the influence of the environmental temperature considerably decreases. The manufacture of a lot of 500 pieces of the device UP-3M is included into the plan for 1961 according to the resolution of the Nauchno-tekhnicheskii komitet i sovnarkhoz Latviyskoy SSR (Scientific-Technical Committee and Sovnarkhoz of the Latviyskaya SSR). There is 1 photograph.

Card 4/4

GRIGULIS, Yu. [Grigulis, J.]; KHUBAYEVA, Z.

Effect of the properties of galvanic platings on the measurement of their thickness by using high-frequency electromagnetic instruments. Izv. AN Latv. SSR no.10:33-40 '63. (MIRA 17:1)

1. Institut avtomatiki i mekhaniki AN Latvyskoy SSR.

L 60225-65 ENT(1)/ENT(m)/EWP(1)/T/EWP(t)/EWP(b)/EWA(h) Pz-6/PeB IJP(c)
JD/AT

ACCESSION NR: AT5013580

UR/2584/64/000/017/0195/0214

23
22
B+1

AUTHOR: Grigulis, Yu. K.

TITLE: Studying the ²¹laminated semiconductor and metallic structures by a h-f electromagnetic field

SOURCE: AN LatSSR. Institut energetiki. Trudy, no. 17, 1964. Poluprovodniki i ikh primeneniye v elektrotekhnike, 3. Upravlyayemye poluprovodnikovyye vypryamitel'nyye elementy i ikh primeneniye (Semiconductors and their use in electrical engineering, 3. Controlled semiconductor rectifying elements and their use), 195-214

TOPIC TAGS: semiconductor material, laminated structure {b

ABSTRACT: The theoretical principles for measuring geometrical and physical parameters of semiconductor structures by observation of the peculiarities of propagation of a h-f electromagnetic field are set forth. Special emphasis is

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ACCESSION NR: AT5013580

placed on the lay-on sensor transducers (primary elements) as they measure only a narrow local spot. The sensor's electromagnetic field distribution is calculated assuming that no field diversion occurs in the penetration process, and the case can be regarded as a planar problem. Also, the case of the wave propagation normally to the surface, with an allowance for wave phenomena and attenuation, is examined. Formulas for the characteristic resistance of a laminate structure are developed. A simplified calculation is possible in these two particular cases: (1) When quasi-stationary conditions prevail, and the field in the laminate structure can be studied by stationary methods (dielectrics); (2) When the field penetrates normally to the surface of the material (metals, semiconductors). Theoretical and experimental curves of the R and X components of the characteristic impedance of steel and brass plated with Al, Ag, Sn, Cu, Zn, Pb, Ni are compared; the experimental values were measured by Soviet-made PPM-4 and UP-1 (and improved PPM-6 and UP-3M) h-f sensors. It is recommended that the semiconductor structures be studied in a wide frequency band; at shf, the study can be based on the absorption of electromagnetic energy and the wave field

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ACCESSION NR: AT5013580

phenomena; at hf, on the phase relations of the penetrating field and the components of the complex dielectric constant. Orig. art. has: 6 figures, 36 formulas, and 1 table.

ASSOCIATION: Institut energetiki AN Latviyskoy SSR (Institute of Power Engineering, AN Latvian SSR)

SUBMITTED: 00

ENCL: 00

SUB CODE: EC

NO REF SOV: 009

OTHER: 002

Card 3/3

L 60227-65 EWT(1)/T/EWA(h) Pz-6/Peb IJP(c) AT

ACCESSION NR: AT5013581

UR/2584/64/000/017/0215/0227

AUTHOR: Grigulis, Yu. K.; Aboltyn', E. E.

TITLE: Measuring the resistivity and surface-layer thickness in semiconductor structures by an electromagnetic shf field

SOURCE: AN LatSSR. Institut energetiki. Trudy, no. 17, 1964. Poluprovodniki i ikh primeneniye v elektrotekhnike, 3. Upravlyayemye poluprovodnikovyye vypryamitel'nyye elementy i ikh primeneniye (Semiconductors and their use in electrical engineering, 3. Controlled semiconductor rectifying elements and their use), 215-227

TOPIC TAGS: semiconductor material, semiconductor resistivity, semiconductor structure

ABSTRACT: The results of a theoretical and experimental study of the physical characteristics of semiconductor laminate structures are reported. The physical phenomena of penetration of a shf field, from lay-on sources, into a semiconductor having dielectric but no magnetic loss are theoretically considered. The effect of $\tan \delta$ and surface-layer thickness in the R and X components of the

Card 1/2

L 60227-65

ACCESSION NR: AT5013581

characteristic impedance are calculated (curves shown); two particular cases are analyzed: (1) The field undergoes a complete attenuation in the surface layer; (2) The field penetrates the surface layer and dissipates in the base without reflection. Formulas are derived for determining the characteristic-impedance coefficients for structures containing semiconductor, metallic, and dielectric layers. An experimental outfit comprised a waveguide with a plunger on one end and the test specimen placed in touch with the other end. By measuring the traveling-wave ratio and noting the plunger position at minimum indicator reading, the specimen characteristics were determined. With a slot shf radiator, a 0.5x2-mm surface specimen accessible on one side only was successfully tested at 10^{10} cps. Orig. art. has: 5 figures and 19 formulas.

ASSOCIATION: Institut energetiki AN Latvyskoy SSR (Institute of Power Engineering, AN Latvian SSR)

SUBMITTED: 00

ENCL: 00

SUB CODE: EC

NO REF SOV: 008

OTHER: 001

Card 2/2

L 20621-66 EWT(1)/T/EWA(h) IJP(e) AT

ACC NR: AP6010263

SOURCE CODE: UR/0371/66/000/001/0034/0041

AUTHOR: Grigulis, Yu. K.—Grigulis, J.; Aboltin'sh, E. E.—Aboltins, E.

ORG: Power Engineering Institute, AN LatvSSR (Institut energetiki
AN Latv SSR) 3/13

TITLE: Measurement of the electrophysical properties of a semiconductor
with a slit field source 9m 21.

SOURCE: AN LatSSR. Izvestiya. Seriya fizicheskikh i tekhnicheskikh
nauk, no. 1, 1966, 34-41

TOPIC TAGS: semiconducting material, resonant cavity, resonator,
electronic measurement

ABSTRACT: A contactless method was used to measure the thickness and specific resistance of semiconducting materials by exposing them to a uhf field acting through a slit in a resonator. By considering the field parameters in the resonator for the case in which one of its walls is made of semiconductor material, the general dependence of Q on the specific resistance of the material ρ was found. The dependence of Q on ρ was then found for the case in which the semiconductor fills a slit in one of the resonator walls. All computations were made for a single resonator type with dimensions $a = l = 2b = 20$ mm and the TE_{101} mode

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L 20621-66

ACC NR: AP6010263

of oscillation at a frequency of 10^{10} cps. An analysis of the theoretical relationships and experimental results has indicated that the slit should preferably be located in the end wall of the resonator, perpendicular to the current force lines (TE_{10} wave). The sensitivity of measurements was found to depend on the length of the slit and is inversely proportional to it. The width of the slit has little effect on sensitivity. A slit 8—15 mm long and 0.5 mm wide can be used in measurements without the necessity of signal amplification. The specific resistance of semiconductors in the range of 0.01—10 ohm·cm can be measured by slit field sources with an accuracy of $\pm 10\%$. Orig. art. has: 5 figures. [JR]

SUB CODE: 09/ SUBM DATE: 23Apr65/ ORIG REF: 006/ OTH REF: 002
ATD PRESS: 4224

Cord 2/2 BK

BELYUKAS, K.K.[Beliukas, K.], akademik, red.; GRIGYALIS, A.A.
[Grigelis, A.], kand. geol.-miner. nauk, red.; GUDELIS,
V.K., kand. geol.-miner. nauk, red.; KISNERYUS, Yu.L.
[Kisnerius, J.], kand. geol.-miner. nauk, red.;
KARATAYUTE-TALIMAA, V.N.[Karatajute-Talimaa, V.], kand.
biol. nauk, red.

[Problems of geology in Lithuania] Voprosy geologii Litvy.
Pod red. A.A.Grigialisa i V.N.Karataiute-Talimaa. Vil'nius,
1963. 623 p. (MIRA 16:11)

1. Lietuvos TSR Mokslu Akademija, Vilna, Geologijos ir geog-
rafijos institutas. 2. AN Litovskoy SSR (for Belyukas).
(Lithuania--Geology)

GRIGYALIS, A.A. [Grigelis, A.], kand. geol.-min. nauk, otv. red.;
VONSAVICHYUS, V.P. [Vonsavicius, V.], red., GUDYALIS,
V.K. [Gudelis, V.], red.; DALINKEVICHYUS, I.A.
[Dalinkevicius, J.], red.; KAZAKOVA, V.A., red.;
KISNERIYUS, Yu.L. [Kisnerius, J.], red.; CHEPULITE, V.A.
[Copulyte, V.], red.; ASSOVSIIY, A.N., glav. red.

[Study of the geology of the U.S.S.R.] Geologicheskaya
izuchennost' SSSR. Glav. red. A.N.Assovskii i dr. Vil'nius,
AN Litovskoi SSR. Vol.43. [Lithuanian S.S.R.; the period of
1800-1955] Litovskaya SSR; period 1800-1955. No.1. [Published
works] Pechatnye raboty. 1962. 257 p. (MIRA 17:8)

1. Institut geologii i geografii AN Litovskoy SSR (for
Grigyalis).

GARUNKSHTENE, S.S.[Garunkstiens, S.]; GRIGYALIS, A.A.[Grigelis, A.],
kand. geo.-miner. nauk; VONSAVICHYUS, V.P.[Vonsavicius, V.],
red.; GAYGALAS, A.I.[Gaigalas, A.], red.; DALINKEVICHYUS,
I.A.[Dalinkevicius, J.], red.; KAZAKOVA, V.A., red.;
KISNERYUS, Yu.L.[Kisnerius, J.], red.; CHEPULITE, V.A.
[Cepulyte, V.], red.

[Study of the geology of the U.S.S.R.] Geologicheskaya izu-
chennost' SSSR. Vil'nius, Mintis. Vol.43. No.1. 1964. 244 p.
(MIA 18:10)

GRIGYALIS, A.I. [Grygelis, A.]

Dynamics of *Ilyodrilus hammoniensis* Mich. and *Psammoryctes barbatus* (Grube) (Oligochaeta) in various biotopes of Lake Diana. Vop. ekol. 5:42 '62. (MIRA 16:6)

1. Institut zoologii i parazitologii, Vil'nyus.
(Diana, Lake--Oligochaeta)

PROKOPOVICH, Arkadiy Yefimovich; GRIGOR'YEV, I.G., inzh., retsenzent;
KORSOV, L.A., inzh., red.; ~~SMIRNOVA, G.V.~~, tekhn.red.

[Machinery industry in 1959-1965] Stankostroenie v 1959-1965 gg.
Moskva, Gos.nauchno-tekhn.isd-vo mashinostroit.lit-ry, 1959.
152 p. (Sovetskoe mashinostroenie v 1959-1965 gg.).

(MIRA 13:3)

(Machinery industry)

Grigoryev I. G.

11-58-6-8/13

AUTHORS: Rubinshteyn, M.M.; Grigor'yev, I.G.; Gel'man, O.Ya.; Khutsaidze, A.L.; Chikvaldze, B.G.

TITLE: On the Technique of Obtaining Monomineral Fractions for Determining the Absolute Age of Rocks by the Argon Method (K metodike polucheniya monomineral'nykh fraktsiy dlya opredeleniya absolutnogo vozrasta gornykh porod argonovym metodom)

PERIODICAL: Izvestiya Akademii Nauk SSSR, Seriya Geologicheskaya, 1958, Nr 6, pp 95-100 (USSR)

ABSTRACT: The Argon method of determining the absolute age of rocks is the most convenient for wide scale use in geological research. Not all potassium containing minerals can be used for this purpose. The best mineral is mica - and especially muscovite, biotite and glauconite mica. For the purposes of obtaining monomineral fractions of these minerals in large quantities (necessary for mass age determination), the author constructed 2 separators of which descriptions are given. There are 2 photos, 2 figures, and 6 references, 4 of which are Soviet and 2 American.

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11-58-6-8/13

On the Technique of Obtaining Monomineral Fractions for Determining the Absolute Age of Rocks by the Argon Method

ASSOCIATION: Geologicheskii institut AN GruzSSR, Tbilisi (Geologic Institute of the AS of the Georgian SSR, Tbilisi)

SUBMITTED: July 15, 1957

AVAILABLE: Library of Congress

Card 2/2 1. Geology 2. Rock-Determination

GRIGORYEV, I. G.

Cand Chem Sci

Dissertation: "Electric Conductivity and Viscosity of the Systems Formed of Lithium Chlorate with Water and of Lithium Nitrate with Water, Methyl Alcohol and Water-Dioxone Mixture." 7/6/50

Inst of General and Inorganic Chemistry imeni N. S. Kurnakov, Acad Sci USSR

SO Vecheryaya Moskva
sum 71

GRIGOR'YEV, I. G.

Electroconductivity and viscosity of the system lithium chloride water. M. A. Eshenko and I. G. Grigor'yev (N. S. Kurnakov Inst. Chem. Phys., Acad. Sci. U.S.S.R., Moscow), *Dokl. Akad. Nauk SSSR*, 21, 388, 30* (1970). The system $\text{LiCl}-\text{H}_2\text{O}$ was studied at concns. of 0.32, 100 mol % and 0.15%. The aq. soln. is described in C.A. 32, 3849; 33, 6123. The cond. curves had a max. which at higher temps. was somewhat displaced toward higher concns. At 25° the max. coincided with a concn. of 36.8 and at 100° with 37.73% by wt. This, practically the compn. of the cryohydr. point. The viscosity curves had breaks at points corresponding to the maxima on the cond. curves. Cond., viscosity, and η curves, as well as the curves of cond. and viscosity temp. coeffs., had breaks corresponding to the compn. $\text{LiCl} \cdot 3\text{H}_2\text{O}$. The increase in cond. of aq. solns. as compared to the fused salt is attributed to ions of the dissolved salt remaining as ions and not combining into mols. and by the mobility of these ions increasing as the viscosity of the soln. decreases. M. Haseh

GRIGOR'YEV, I. G.

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Electroconductivity and viscosity of the system lithium nitrate-water. M. A. Klovko and I. O. Grigor'ev (N. S. Kurnakov Inst. Gen. Inorg. Chem., Acad. Sci. U.S.S.R., Moscow). *Izvest. Sektora Fiz.-Khim. Anal. Inst. Obshch. i Inorg. Khim., Akad. Nauk S.S.S.R.* 21, 303-10 (1952).
This system was studied at LiNO_3 concns. of 0-40.0 mol. % and 25, 50, 75, and 100°. The maxima on the cond. curves shifted from 10.3 mol. % at 25° to 11.8 mol. % at 100°; the cryohydric point is at 11.6 mol. %. On approx. the same points on the viscosity curves a sharp rise started. The trihydrate was marked on the property curves either by breaks or bends. In aq. solns. the viscosity decreases from pure salt to pure H_2O . It is also possible that the ions migrate under the influence of an elec. field in a shell of H_2O . The dimensions of this shell depend on the concn., considering that at a concn. of 90 mol. % 1 mol. of H_2O is shared by 18 ions and only at 33.3 mol. % does each ion have a mol. of H_2O . Pure fused LiNO_3 at 260° had a cond. 0.80 ohm⁻¹cm.⁻¹ or twice the max. cond. at 100°. M. Hosh

[Handwritten signature]

GRIGOR'YEV, I. S.

Electroconductivity and viscosity of the system lithium nitrate-methyl alcohol. M. A. Koshko and I. G. Grigor'ev
(N. S. Kurnakov Inst. Gen. Inorg. Chem., Acad. Sci. U.S.S.R., Moscow), Izv. Akad. Nauk S.S.S.R. Ser. Khim. Anal. Inst. Obshch. Neorg. Khim., Akad. Nauk S.S.S.R. 31, 311-17 (1952).--In this investigation the concn. of LiNO_3 was 0-24.80 mol. % and the temps. 0, 25, and 50°. The cond. curves had maxima that shifted toward higher concn. with the rise in temp. Thus, at 0° the max. coincided with 8 mol. % and at 50° with 8.3 mol. %. The viscosity curves rose gently at first and then sharply. Generally, the property curves of LiNO_3 in MeOH resembled closely analogous curves in H_2O except for the numerical values of the resp. points. At 25° the cond. max. in H_2O coincided with 10.3 mol. % LiNO_3 and in MeOH with 8.2 mol. %. The abs. value of cond. at 25° and 50° in H_2O was 5.5-6.9 times the corresponding value in MeOH, whereas the viscosity in MeOH was only 1.34-1.35 times the corresponding value in H_2O . Apparently, the interaction of components in the 2 systems is quite different.
M. Hosh

GRIGOR'YEV, I. G.

Properties of lithium nitrate solutions in equimolecular mixtures of water and dioxane. M. A. Khechko and I. G. Grigor'yev (N. S. Kurnakov Inst. Gen. Inorg. Chem., USSR, Moscow). *Izv. Akad. Nauk S.S.S.R., Khim. Nauk, (Chemical Progr. Khim., Akad. Nauk S.S.S.R., 1968, 2001021).* Cond., viscosity, d., layer-sepn. temp., refract. temp. of 1.00-33.10 mol.-% LiNO_3 were studied in equimol. mixts. of H_2O and dioxane at 15-75°. The ϵ of the H_2O -dioxane mixt. was 2.17×10^{-4} , 3.34×10^{-4} , and 6.18×10^{-4} mhos/cm. at 25, 50, and 75°, resp. The temp. of appearance of crystals rose with the LiNO_3 content from 2.5° in soln. free of LiNO_3 to 8.7° at 20.17 mol.-% of LiNO_3 . At 11 mol.-% there was a bend in the curve. There was no layer sepn. at 2-14.5° in the LiNO_3 -dioxane system. The layer sepn. zone was observed at 0-10° if the LiNO_3 exceeded 29.4 mol.-%. On the temp. diagram the layer sepn. zone presents an inverted angle with its apex at 8.5° and 11.4 mol.-% LiNO_3 . At 15-75° the area extends from 11 to 13 mol.-%, at 50° from 10 to 20.5 mol.-%, and at 75° from 7 to 28 mol.-% LiNO_3 . Cond. polytherm of a compn. entirely outside the layer sepn. zone (2.39 mol.-%) rose uniformly with temp. The

cond. polytherm for 9.81 mol.-% LiNO_3 had a bend at a point close by, where layer sepn. began. The cond. polytherm for 11.30 mol.-% LiNO_3 , which compn. is entirely within the layer sepn. zone, had no bends and rose sharply with temp. The cond. was dens. in the lower layer which contained practically all of the LiNO_3 . Cond. isotherms had bends on the boundary of the layer sepn. zone. Upon entering the layer sepn. zone the cond. rose sharply and dropped upon emergence from it. The viscosity and d. curves behaved in an analogous manner. For comparative reasons, of LiNO_3 at 25° in H_2O , MeOH, and H_2O -dioxane (1:1) the res. data for cond. (κ), viscosity (η), and temp. coeff. of cond. (α) and of viscosity (β) are: for 9.81 mol.-% LiNO_3 in H_2O $\kappa = 0.1079$ mho/cm., $\eta = 1.43$ centipoise, $\alpha = 1.435$, $\beta_{\text{H}_2\text{O}} = 1.818$ and $\alpha/\beta = 0.822$. For 9.80 mol.-% LiNO_3 in H_2O $\kappa = 0.0290$, $\eta = 2.077$, $\alpha = 1.300$, $\beta = 1.792$, and $\alpha/\beta = 0.761$. For 9.81 mol.-% LiNO_3 in H_2O -dioxane $\kappa = 0.00485$, $\eta = 2.704$, $\alpha_{\text{H}_2\text{O}}$ = 1.340, $\beta_{\text{H}_2\text{O}}$ = 2.105, and $\alpha/\beta = 0.631$. Qualitatively, the decrease in cond. can be explained by a decrease in the dielect. const. and a decrease in dipole moments of the 3 solvents. M. Hosh

27751
S/058/61/000/007/042/086
A001/A101

11.4100

AUTHORS: Rubinshteyn, M.M., Grigor'yev, I.G., Uznadze, E.D., Gel'man, O.Ya.,
Lashkhi, B.A.

TITLE: Spectrophotometrical determination of alkali metals in ammonia-oxy-
gen flame

PERIODICAL: Referativnyy zhurnal. Fizika, no. 7, 1961, 175, abstract 70149 .
("Soobshch. AN GruzSSR", 1960, v. 24, no. 6, 683 - 690) 4

TEXT: The authors describe a flame-photometrical device designed for de-
termination of Na, K, Li and Rb in solutions. The $\text{NH}_3\text{-O}_2$ flame was used for spec-
trum excitation. The measurement of spectral line intensities was conducted
with a photoelectrical device which consisted of an UM-2 (UM-2) monochromator,
a photocell, a d-c amplifier, and a microamperemeter. The nature of an effect
which arose at the simultaneous determination of alkali elements was investigat-
ed, and methods of taking it into account are proposed. In particular, tables
are calculated for correcting the results of joint determinations of Na and K.

M. Britske

[Abstracter's note: Complete translation]

Card 1/1

~~GRIGOR'YEV, Ivan Grigor'yevich; ZULIN, Vladimir Vasil'yevich;~~
~~PETROPOL'SKAYA, N.Ye., red.; DURASOVA, V.M., tekhn. red.~~

[Electrical conductivity as a means for analyzing gaseous and
liquid systems]Elektroprovodnost' kak metod analiza gazovykh i
zhidkikh sistem. Katsyshev, Kuibyshevskoe knizhnoe izd-vo,
1961. 21 p. (MIRA 16:3)
(Electric conductivity) (Electrochemistry)

S/081/62/000/017/041/102
B162/B101

AUTHOR: Grigor'yev, I. G.

TITLE: Multichannel installation for the purposes of flame photometry

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 17, 1962, 143, abstract
17E10 (Soobshch. AN GruzSSR, v. 27, no. 3, 1961, 299 - 305)

TEXT: The installation consists of a spectral apparatus with a scanning device and an electronic section, which includes an oscilloscope, a system selecting and distributing electric pulses along the corresponding measuring channels, and the sources of supply. The optical section is assembled on the basis of the ИСП-51 (ISP-51) spectrograph. The scanning of the spectrum is effected by the oscillation of an autocollimation mirror with a frequency of 50 cps. A photomultiplier is used as a radiation receiver. After amplification and transformation the signal is directed on to an oscilloscope, on the screen of which the spectrum investigated is observed. For the exact measurement of the intensity of each line, the pulses are distributed along the corresponding channels. The apparatus described permits the simultaneous measuring of five lines, besides, it is possible to determine the quantities of Na, L, and K in solutions, starting from a Card 1/2

Multichannel installation for the...

S/081/62/000/017/041/102
B162/B101

concentration of 1 mg/l. [Abstracter's note: Complete translation.]

*Академия наук Грузинской ССР Биологический
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V. V. Машкедiani*

Card 2/2

RUBINSHTEYN, M.M.; GRIGOR'YEV, I.G.; UZNADZE, E.D.; GEL'MAN, O.Ya.

Photometric determination of potassium and sodium in ammonia-oxygen flame. Biul.Kom.po opr.abs.vozr.geol.form. no.4:109-113
'61. (MIRA 15:1)

(Geological time)
(Potassium) (Sodium)

GRIGOR'YEV, I.G.

Multichannel system for recording spectra in flame photometry.
Zav. lab. 28 no.9:1139-1141 '62. (MIRA 16:6)

1. Geologicheskii institut AN Gruzinskoy SSR.
(Flame photometry)

GPIGOR'YEV, I.G.

Operating experience with a multichannel spectrophotometric apparatus for recording radiations from alkaline elements in flame. Soob. AN Gruz. SSR 29 no.1:17-23 J1 '62.

(MIRA 18:5)

1. Geologicheskii institut AN Gruzinskoy SSR, Tbilisi. Submitted February 12, 1961.

GRIGOR'YEV, Iv.F.

Geochemical characteristics of tin and tin-tungsten deposits in
Eastern Siberia. Trudy MGRI 37:90-101 '61. (MIRA 15:1)
(Siberia, Eastern--Tin ores) (Siberia, Eastern--Tungsten ores)

PHASE I BOOK EXPLOITATION

SOV/4126

Grigor'yev, Ivan Ivanovich, Boris Grigor'yevich Diatroptov, and Nadezhda Ivanovna Plyshevskaya

Prepodavaniye teoreticheskoy mekhaniki v tekhnikumakh (The Teaching of Theoretical Mechanics in Tekhnikumakh) Moscow, Proftekhizdat, 1960. 243 p. 4,000 copies printed.

Scientific Ed.: G.M. Karovskiy; Ed.: M.V. Kobrinskaya; Tech. Ed.: V.I. Sushkevich

PURPOSE: This book is recommended as a training manual for teachers at special secondary technical schools by the Training and Methods Direction for Special Secondary Institutions of the Ministry of Special Technical Colleges and Secondary Education in the USSR.

COVERAGE: The book discusses a number of general problems in the teaching of mechanics and also special methods of presentation (under the conditions of a tekhnikum) of individual topics. The limited size of this manual does not permit consideration of special methods for all topics of the course; therefore, the topics selected were those most difficult to teach. The topics treated are

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The Teaching of Theoretical Mechanics in Tekhnikum

807/4128

statics, which gives the students ability and skill in solving problems for systems in equilibrium, including the foundations of graphical statics; kinematics, which discusses various types of motion and examples of their application in engineering; dynamics, in which only the most essential problems are singled out; and elements of the theory of mechanisms and machines, which is quite thoroughly covered. No personalities are mentioned. There are 60 references: 58 Soviet and 2 German.

TABLE OF CONTENTS:

Introduction

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GENERAL PART

1. Aims, problems, and special features of teaching theoretical mechanics with elementary theory of mechanisms and machines at tekhnikums
2. Planning the teaching process
3. Presentation of new material
4. Impressing the material on the students' memory
5. Written tests on mechanics

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Card 2/4

SKLYUYEV, P.V.; GRIGOR'YEV, I.I.

Vacuum treatment of steel for seamless-forged steam turbine rotors. Metalloved. i term. obr. met. no. 6:34-36 Jo '64.
(MIRA 17:7)

1. Ural'skiy zavod tyazhelego mashinostroyeniya imeni
Sergo Ordzonikidze.

GRIGOR'YEV, I.I.

Survival of leptospira on various objects. Voen.-med.zhur. no.6:
73-76 Je '51. (MIRA 9:9)
(LEPTOSPIRA)

GRIGOR'YEV, I.I.

Destructive effect of temperature and sunlight upon *Leptospira*.
Zhur.mikrobiol.epid.i immun. no.1:44 Ja '54. (MLRA 7:2)

1. Iz Voronezhskogo instituta epidemiologii i mikrobiologii.
(*Leptospira*)

GRIGOR'YEV I.I.

USSR/Human and Animal Physiology. Action of Physical Agents. T

Abs Jour: Ref Zhur-Biol., No 8, 1958, 37013.

Author : Grigoriev, I.I.

Inst :

Title : Susceptibility to Leptospirosis of Rats Subjected to X-Ray Irradiation.

Orig Pub: Vrachebn. delo. 1957, No 3, 267-270.

Abstract: Rats, (224) were injected intraperitoneally with 5 ml of Leptospira (L) culture of the 2 (Zhukov) or 5 (Kondratiev) serotype; 4 hours to 14 days after a single general irradiation with 400-550 r, a lowering of resistance to this infection, as compared with control animals, was noted. The highest mortality (37%) was noted in rats irradiated with 550 r and infected with L of the 5 serotype, the lowest mortality

Card : 1/2

GRIGOR'YEV, I.I.

Sensitivity of irradiated animals to pathogenic *Leptospira* [with summary in English]. Med.rad. 3 no.4:46-50 J1-Ag '58.

(MIRA 12:3)

1. Iz Voronezhskogo rentgeno-radiologicheskogo i onkologicheskogo instituta i Sochinskogo gosudarstvennogo instituta revmatizma.

(LEPTOSPIROSIS, experimental,

immun. in x-irradiated white rats (Rus))

(ROENTGEN RAYS, effects,

on exper. leptospirosis immun. in white rats (Rus))

GRIGOR'YEV, I.I., kand.med.nauk; SHIKHOVA, N.M., do'sent; KURAMSHINA, M.G.,
kand.biol.nauk

Elimination of streptococci in rheumatic fever. Vrach.delo no.6:585-
587 Je '59. (MIRA 12:12)

1. Sochinskiy nauchno-issledovatel'skiy institut revmatizma.
(RHEUMATIC FEVER) (STREPTOCOCCUS)